

ATTORNEY DOCKET NO. 03224.0001U1
APPLICATION NO. 09/839,581

REMARKS

Claims 1-24, 49, and 50 are rejected under 35 U.S.C. §103(a) as being obvious over U.S.P.N. 5,815,146 to Youden (hereinafter "Youden") in view of U.S.P.N. 5,892,915 to Duso (hereinafter "Duso"). Claim 16 stands rejected under 35 U.S.C. §112 for failing to particularly point out and distinctly claim the subject matter of the invention. In light of the Remarks and amendments, the Applicant respectfully requests reconsideration and allowance of the pending claims.

Rejections under 35 U.S.C. §112

The Office Action rejects claim 16 as failing to particularly point out and distinctly claim the subject matter of the invention because the phrase 'the directory information' in claim 16 lacks proper antecedent basis. The Applicant has amended claim 16 to depend from claim 15, providing the proper antecedent basis for 'the directory information' phrase in claim 16. Accordingly, the Applicant respectfully requests that the rejection of claim 16 under 35 U.S.C. §112 be withdrawn.

Rejections under 35 U.S.C. §103(a)

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991).

Independent Claims 1, 13, 49, and 50

The Office Action rejects independent claims 1, 13, 49, and 50 as obvious over Youden in view of Duso and applies the same rationale to reject each claim. Accordingly, arguments

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made with respect to the allowability of claim 1 apply to claims 13, 49, and 50.

I. The Cited References Do Not Teach or Disclose Every Element of Claim 1.

Claim 1 recites a system for retrieving data distributed across a plurality of storage devices, and includes a switch arranged between processors and storage devices. The switch of claim 1 independently routes data requests from the designated processor to storage devices, and also independently routes responses from the storage devices to the designated processor. Claim 1 recites in relevant part:

a plurality of processors, wherein upon receipt of a request for retrieving data, a processor is designated for handling the request; and
a switch arranged between the processors and the storage devices, wherein the switch independently routes a request for retrieving data from the designated processor directly to the storage devices containing the requested data and independently routes responses from the storage devices directly to the designated processor.

Claim 1 (emphasis added).

To support a rejection of claim 1 as obvious, the Office Action states:

Regarding claims 1, 13, 49, and 50, Youden discloses a system and method for retrieving data distributed across a plurality of storage devices comprising a plurality of data source processors 100 (see fig 2 and fig 5) which are assigned to handle a user's request by processing the requested data in data source processor. Youden discloses a switch 70 arranged between processors 100 and storage devices 92 (see fig 2). Requested data, retrieved from storage devices 92, are independently routed from storage devices 92 to data source processors 100 via switch 70 (see fig 2).

Office Action, at 3 (emphasis added).

With respect to Fig. 2, Youden discloses:

FIG. 2 is a block diagram of the first preferred embodiment of the present invention. M/D switches 70 and 80 respectively couple data sources 100 to data storage system 90 and data sources 100 to distribution network 20 (see FIG. 1). M/D switches 70 and 80 are capable of coupling any of their input sources to any of their output sources and function as multiplexers/demultiplexers. The M/D

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switches do not have to be unitary. Multiple smaller M/D switches, either blocking or non-blocking, can be used. In this first embodiment, a FiberChannel M/D switch serves as M/D switch 70 and an Asynchronous Transfer Mode ("ATM") M/D switch serves as M/D switch 80. These types of M/D switches are commercially available and require no further description. Other M/D switches such as a SCSI switch or a time division crossbar equivalent switch could be used without changing this first embodiment in any substantive way.

Youden Col. 5, lines 26-42 (emphasis added).

As seen above, Youden provides little detail regarding the switch disclosed in Youden, stating that it is "commercially available and requires no further description." Youden nowhere discloses that the switch of Youden independently routes data. Rather, Youden discloses only that the switch routes data in response to direct routing commands. Youden Col. 3, lines 13-21. Therefore, the Applicant respectfully asserts that Youden does not teach or disclose a switch which independently routes requested data from storage devices to data source processors, as recited in claim 1.

To support a rejection of claim 1 as obvious, the Office Action further states in part:

Youden fails to disclose the switch independently routes a request for retrieving data from the designated processor directly to the storage devices containing the requested data. In other words, Youden is silent with regard to assigning a data source processor for handling a user's request by sending the request from the data source to the data storage subsystem 100 as requests for retrieving data is handled by control system 50 and real time controller 60.

In analogous art, Duso teaches VOD system (col 22 lines 54 – 65, col 23 lines 6 - 63) in which a control server assigns a stream server to a network client requesting a multimedia service (see col 6 lines 46 - 57) in which a stream server handles client's requests.

Office Action, at 3 (emphasis added).

Duso discloses a video server and a client-server protocol for providing VCR-like functionality to a network client. Duso Col. 2, line 39 to Col. 3, line 12. The VCR functionality

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provided by Duso includes stop, fast-forward, and fast-reverse. Duso Col. 23, lines 16-24. Duso provides VCR-like functionality by assigning a stream server to a network client which has requested video content. Duso Col. 6, lines 46-60. The stream servers of Duso each buffer part of the requested content, enabling the VCR-like functionality. Duso Col. 23, lines 6-63. Duso further discloses a control server which assigns the appropriate stream servers to a network client requesting content. Duso Col. 6, lines 46-63. The stream servers are connected to network clients using a network which has "conventional switching mechanisms" such as ATM or cross-bar switches. *Id.* The control server assigns a stream server to a network client by sending the network address of the stream server to the client, or by communicating with a switching mechanism to establish a link between the client and the assigned stream server. *Id.*

Claim 1, in relevant part, recites a switch arranged between a processor and storage devices, with the switch independently routing requests for retrieving data from a designated processor to storage devices. In contrast to the switch recited in claim 1, the control server of Duso does not route data, but rather assigns a stream server to a network client. In further contrast to the control server of Duso, the switch of claim 1 independently routes information between processors and storage devices, and does not recite network clients. Thus, the Applicant respectfully asserts that Duso does not teach or disclose a switch arranged between processors and storage devices, wherein the switch independently routes a request for retrieving data from a designated processor to the storage devices containing the requested data, as recited in claim 1.

In view of the Remarks above, the Applicant respectfully asserts that claim 1 is allowable for at least the reason that the cited references, alone or in combination, do not disclose a switch arranged between processors and storage devices, wherein the switch independently routes a request for retrieving data from the designated processor directly to the storage devices containing the requested data and independently routes responses from the storage devices directly to the designated processor, as recited in claim 1.

II. The Cited References Are Not Properly Combinable.

To support a rejection of claim 1 as obvious, the Office Action further states in part:

It would have been obvious to one skilled in the art assigning a processor or server for handling a user's request would have

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reduced the load and burden on the control server. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Youden to include assigning a data source processor for handling user's request's as claimed for the benefit of reducing the load and burden on the real time controller 60 and control system 50.

Office Action, at 3-4 (emphasis added).

To establish a *prima facie* case of obviousness, there must be a motivation or suggestion to combine the cited references and arrive at the claimed invention. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). References cannot be combined where a reference teaches away from the claimed invention. *See M.P.E.P. § 2145, § 2143.01, and § 2141.02; In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983). "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In Re Gurley*, 27 F.3d 551, 533 (Fed. Cir. 1994). Further, the level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308 (Fed. Cir. 1999); M.P.E.P. § 2143.01.

The Applicant respectfully asserts that claim 1 is allowable for at least the reason that the Office Action does not provide a proper motivation to combine the cited references in order to arrive at the invention of claim 1. The Applicant asserts that modifying Youden to "include assigning a data source processor for handling user's request's as claimed for the benefit of reducing the load and burden on the real time controller 60 and control system 50" would not result in, and is not a motivation for, the invention recited in claim 1 because claim 1 recites a switch independently routing requests and responses, not a "real time controller" or "control system" as disclosed in the references. The Applicant also respectfully asserts that Youden is not properly combinable with Duso for at least the reason that the "commercially available and requires no further description" switch of Youden would discourage one of skill in the art from combining Youden with Duso for the purpose of arriving at the invention of claim 1. In other words, one of skill in the art would, given the switch disclosed in Youden, be directed away from a switch which independently routes requests and responses between processors and storage

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devices as recited in claim 1.

Accordingly, the Applicant respectfully asserts that claim 1 is allowable for at least the reason that a proper motivation to combine Youden and Duso to arrive at the invention of claim 1 was not provided because the references do not disclose every limitation of claim 1 and because Youden and Duso are not properly combinable to arrive at the invention of claim 1. Claims 13, 49, and 50 are allowable for at least the reasons given for the allowability of claim 1.

Dependent Claims 2-12 and 14-24

The Applicant respectfully asserts that claims 2-12 and 14-24 are allowable for at least the reason that each depends from an allowable independent claim.

CONCLUSION

In view of the Remarks, each of the presently pending claims in the Application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass the application to issue. If the Examiner believes discussion of any issue would expedite examination, the Examiner is encouraged to telephone the Applicant's undersigned representative. No additional fee is believed due. However, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,
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